Appendix A

Institutional Controls Monitoring Report Questionnaire

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Institutional Controls Monitoring Report

DATE OF INSPECTION:
10 August 2000

1st INSPECTOR: Neil Snyder
ORGANIZATION: BBWI Environmental Restoration
TITLE: Project Engineer
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2nd INSPECTOR: Valerie Seeley
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TITLE: Project Task Lead
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GENERAL OU DESCRIPTION AND OPERATIONAL HISTORY: Provide a brief description of the operable unit and its operational history since the last monitoring inspection (or Record of Decision [ROD] signature if the first inspection). Summarize the ROD's institutional controls and land use assumptions. Take photographs of each site, identify the date, time, location, and compass orientation of each photograph in a photographic log. Also, provide a brief description of how the Idaho National Engineering and Environmental Laboratory (INEEL) is meeting the facility-wide institutional control requirements (use additional sheets as necessary).

The INEEL is a government-owned/contractor operated facility managed by the Department of Energy Idaho Operations Office (DOE-ID) (Figure 2-1) that is located 51 km (32 mi) west of Idaho Falls, Idaho. The INEEL encompasses portions of five Idaho counties: (1) Butte, (2) Jefferson, (3) Bonneville, (4) Clark, and (5) Bingham, occupying 2,305 km^2 (890 mi^2) of the northeastern portion of the Eastern Snake River Plain. The Test Reactor Area (TRA) was established in the early 1950s in the southwestern portion of the INEEL. The TRA has housed extensive facilities for studying the effects of radiation on materials, fuels, and equipment, including high neutron flux nuclear test reactors. Radioactive, unregulated, and Resource Conservation and Recovery Act (RCRA) hazardous wastes have been generated from scientific and engineering research projects conducted at TRA. Although extracted and treated, some of the disposed wastes still contained low-level radioactive and RCRA-hazardous solutions. As originally designed and installed in the early 1950s, two separate liquid waste streams were generated and discharged at TRA: (1) sanitary sewage and (2) all other liquid waste streams.

GENERAL QUESTIONS

1. Has INEEL developed a comprehensive facility-wide approach for establishing, implementing, enforcing, and monitoring institutional controls at the facility. This approach will frequently include a Base Master Plan or a facility-wide land use plan, installation maps, a comprehensive permitting system, and other installation policies and orders.

The INEEL Comprehensive Facilities and Land Use Plan (CFLUP) is used to track land use and includes installation maps. Internal procedures control work and land use.

2. Does the CFLUP (or equivalent) list all areas or locations covered by the Operable Unit (OU) 2-13 ROD that has institutional controls for protection of human health or the environment?

The CFLUP will list all the areas in the OU 2-13 ROD that have institutional controls for protection of human health or the environment.

3. Do the applicable company work control procedures describe how and what entities and persons are covered by the Institutional Controls? If yes, list who is covered (e.g., contractors, employees, invitees) and describe the nature of the coverage.

Yes. Work control procedures cover all entities and persons including, but not limited to, employees, contractors, lessees, and visitors that access controlled release sites.

4. Do procedures that control activities at the waste site address the following activities: future soil disturbance, routine and nonroutine utility work, well placement and drilling, recreational activities, groundwater withdrawals, paving, training activities, construction, renovation work on structures; or other activities? Describe by type of site.

All activities at TRA are conducted in accordance with the Integrated Safety Management System that has been implemented across the INEEL. This system is described in Program Description Documents PDD-1004, INEEL Integrated Safety Management System, and PDD-1005, Site Operations Manual. The Integrated Work Control Process is used to control all maintenance and construction activities at TRA; this process is described in Standard STD-101, Integrated Work Control Process. Numerous procedures have been developed under these programs to ensure that all activities at TRA are conducted safely and without impact to the environment.

5. Describe how the CFLUP serves as a tracking mechanism that identifies all land areas under restriction or control.

The CFLUP is currently being modified to include a listing of all Waste Area Group (WAG) 2 sites that require institutional controls (ICs). The CFLUP will provide a picture of each site, surveyed coordinates of the sites, lists of the ICs required for the sites, and a contact name and phone number of the representative of the sites. The CFLUP will be updated on an annual basis unless changes to land usage or changes to ICs of the release sites occur. In these instances, the CFLUP will be updated within the year that the changes occurred.

6. Describe the process that is in place to promptly notify both the Environmental Protection Agency (EPA) and the state prior to any anticipated change in land use designation, restriction, land users or activity for any institutional control required by a decision document. If yes, please describe.

The Operations and Maintenance Plan, Section 6, specifies the procedure by which the EPA and the state would be notified prior to any anticipated change in land use designation, restriction, land users, or activities for ICs specified for WAG 2, OU 2-13. ICs will not be deleted or terminated unless the EPA and the state have concurred in the deletion or termination, based on the results of the five-year remedy reviews.

7. Has the INEEL designated a point of contact for implementing, maintaining, and monitoring institutional controls? If yes, provide name, title and phone number?

Yes. Julie Sherwood, WAG 2 Project Manager, (208) 526-9369.

8. Has DOE-ID obtained sufficient funding to institute and maintain institutional controls pursuant to Paragraph 28 of the Federal Facility Agreement and Consent Order? If no, describe what steps were taken to obtain sufficient funding.

Yes, the DOE-ID has obtained sufficient funding to institute and maintain the required ICs at WAG 2, OU 2-13.

No ICs pertaining to WAG 2, OU 2-13 have been terminated or deleted.

10. Has the INEEL transferred, sold, or leased any property subject to institutional controls in OU 2-13? If yes, please describe to include dates of notification to state and EPA.

No property subject to ICs in WAG 2, OU 2-13 has been transferred, sold, or leased at the time of this inspection.

11. Has the INEEL transferred, sold, or leased any other property? If yes, please describe to include dates of notification to state and EPA.

No property associated with TRA has been transferred, sold, or leased at the time of this inspection.

12. Does the INEEL have any plans in the next year to transfer, sell, or lease any properties?

DOE-ID does not have any plans to transfer, sell, or lease any TRA properties during fiscal year 2001.

DEFICIENCIES:

Provide a description of any deficiencies and the efforts or measures that have been or will be taken to correct problems.

The CFLUP does not presently provide the required functions to serve as a tracking mechanism for land areas under restriction or control.

IMPROVEMENTS:

Describe any additional institutional control requirements that may be necessary due to unique circumstances observed during the visual inspection?

No additional IC requirements were identified during the inspection.

SITE [a] TRA #	ROD Land Use [b]	Current Land Use	Required Institutional Control (WS, CFLUP, P, L, W) [c]	Observed Institutional Controls (WS, CFLUP, P, L, W) [c]	ICs O&F (Y/N) [d]	Photo Numbers	Visual Inspection Comments
03	ZI, RC	ZI	WS, CFLUP, P, L	WS, CFLUP, P, L	Y	PD000608-80 and 81	RESTRICT OCCUPATIONAL ACCESS
06	ZI, U	ZI	WS, CFLUP, P, L	WS, CFLUP, P, L	Y	PD000608-84 and 85	INDUSTRIAL USE
08	ZI, U	ZI	P, L	WS, CFLUP, P, L	Y	PD000608-78 and 79	INDUSTRIAL USE
13 & SCA	ZI, RC	ZI	WS, P, L	WS, CFLUP, P, L	Y	PD000608-82 and 83	RESTRICT OCCUPATIONAL ACCESS
15	ZI, RC	ZI	WS, P, L	WS, CFLUP, P, L	Y	PD000608- 97 and 98	RESTRICT OCCUPATIONAL ACCESS
19	ZI, RC	ZI	WS, P, L	WS, CFLUP, P, L	Y	PD000608-96	RESTRICT OCCUPATIONAL ACCESS AND PROHIBIT RESIDENTAL sign is inside of TRA-630
Brass Cap Area	ZI, RC	ZI	WS, P, L	WS, CFLUP, P, L	Y	PD000608-94 and 95	RESTRICT OCCUPATIONAL ACCESS AND PROHIBIT RESIDENTIAL
619	ZI	ZI	P, L	WS, CFLUP, P, L	Y	PD000608-90 and 91	INDUSTRIAL USE
626	ZI	ZI	P,L	WS, CFLUP, P, L	Y	PD000608-92 and 93	INSDUSTRIAL USE
653	ZI	ZI	P,L	WS, CFLUP, P, L	Y	PD000608-86 and 87	INDUSTRIAL USE
04	ZI	ZI	P, L	WS, CFLUP, P, L	Y	PD000608-99 and 100	INDUSTRIAL USE ONLY < 10 FT.
34	ZI,	ZI	P, L	WS, CFLUP, P, L	Y	PD000608-101 and 102	INDUSTRIAL USE
Hot tree site	ZI	ZI	P, L	WS, CFLUP, P, L	Y	PD000608-88 and 89	INDUSTRIAL USE FOR APPROXIMATELY 30 YEARS
Groundwater			W, CFLUP, P, L	W, CFLUP, P, L		N/A	GROUNDWATER MONITORING IS PERFORMED SEMIANNUALLY

See OU 2-13 ROD or subsequent decision document for site description. Does not include "No Action" sites.

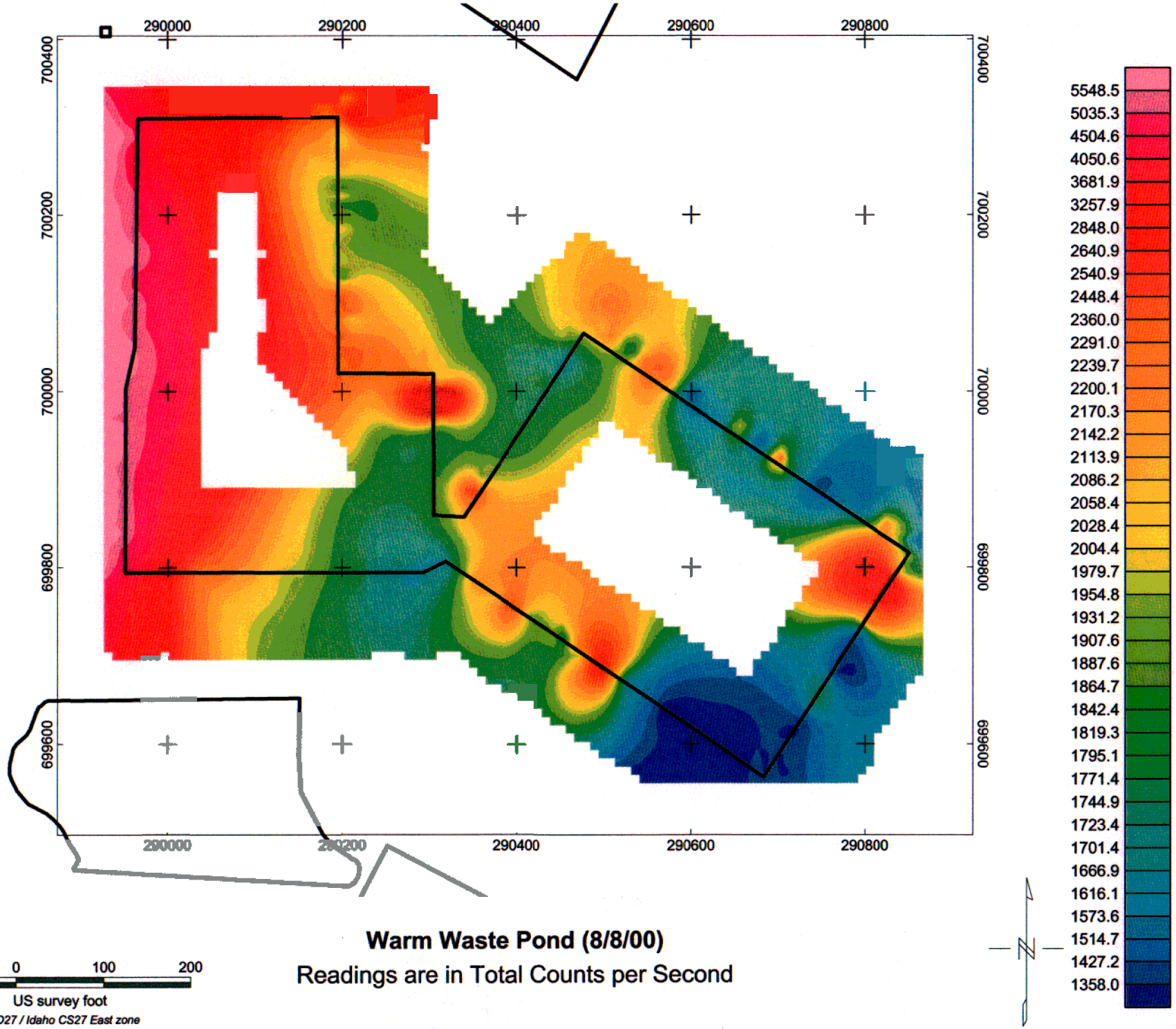
Describe land use, unrestricted (U), structures-industrial (SI), zoned industrial (ZI), grazing (G), radiologically controlled (RC), etc. Explain in comments.

WS = warning signs, CFLUP = INEEL Comprehensive Facility Land Use Plan, NA = no action, P = property transfer restrictions, L = lease restrictions, W = well drilling restrictions

O&F = Is the institutional control required in ROD operational and functional (e.g., signs posted).

Appendix B

Radiological Monitoring Data



Warm Waste Pond (8/8/00)

Readings are in Total Counts per Second

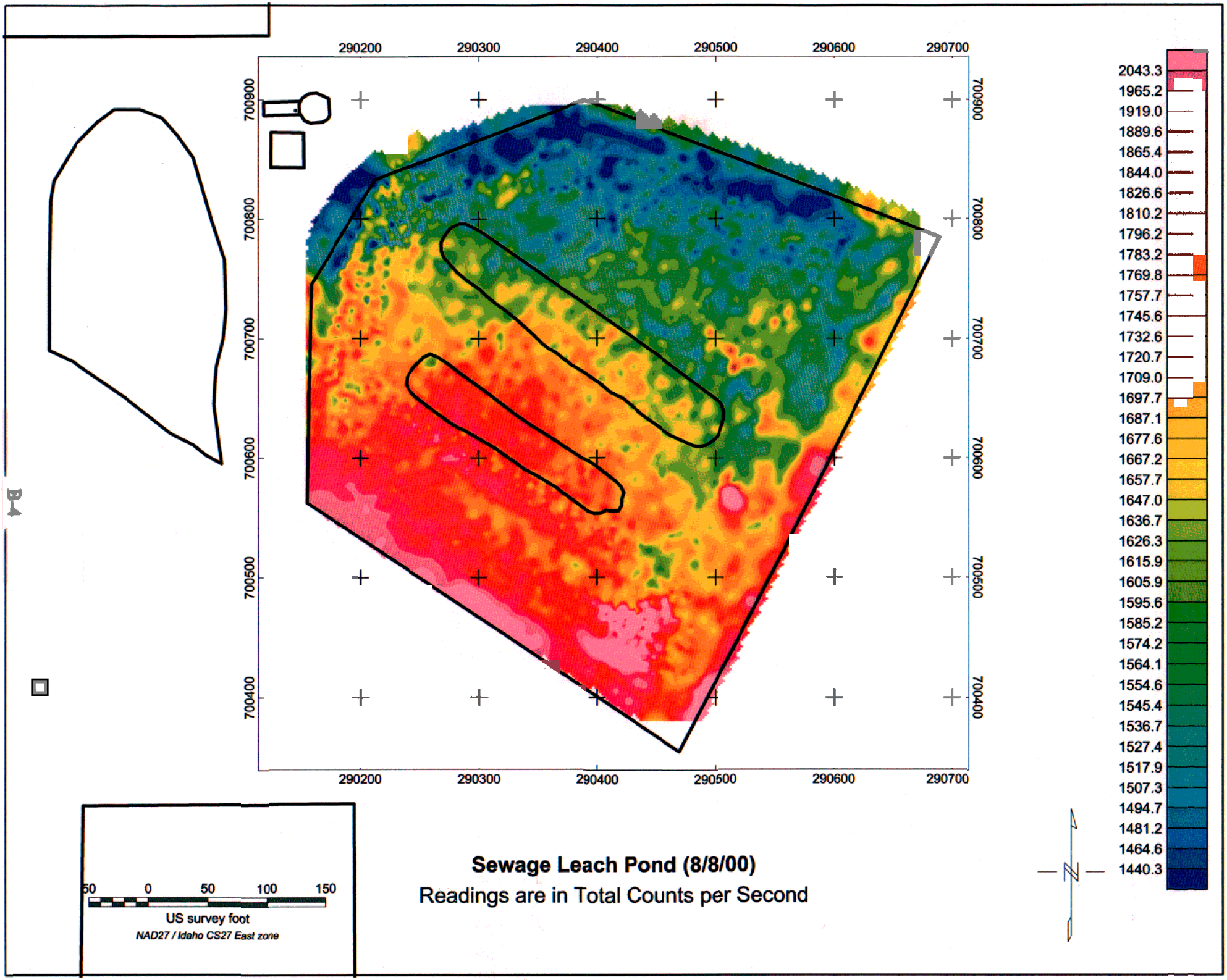
B-1

Statistics Information

Database:	.\warmwastepond.gdb
Channel:	Totalcps
Line:	[All]
Fiducial range:	[All]
Number of items:	4553
Number of dummies:	0
Minimum value:	1331
Maximum value:	3367
Mean value:	1686.864484955
Standard deviation:	178.4060413628
Arithmetic sum:	7680294

Statistics Information

Database:	D:\Geosoft\warmwastepond.gdb
Channel:	uRh
Line:	[All]
Fiducial range:	[All]
Number of items:	4553
Number of dummies:	0
Minimum value:	15.972
Maximum value:	40.404
Mean value:	20.24237381946
Standard deviation:	2.140872496353
Arithmetic sum:	92163.528


290200
290300
290400
290500
290600
290700
700900
700800
700700
700600
700500
700400
2043.3
1965.2
1919.0
1889.6
1865.4
1844.0
1826.6
1810.2
1796.2
1783.2
1769.8
1757.7
1745.6
1732.6
1720.7
1709.0
1697.7
1687.1
1677.6
1667.2
1657.7
1647.0
1636.7
1626.3
1615.9
1605.9
1595.6
1585.2
1574.2
1564.1
1554.6
1545.4
1536.7
1527.4
1517.9
1507.3
1494.7
1481.2
1464.6
1440.3
50 0 50 100 150
US survey foot
NAD27 / Idaho CS27 East zone
Sewage Leach Pond (8/8/00)
Readings are in Total Counts per Second

Statistics Information

Database:	D:\Geosoft\sewageleachpond.gdb
Channel:	Totalcps
Line:	[All]
Fiducial range:	[All]
Number of items:	516
Number of dummies:	0
Minimum value:	1256
Maximum value:	6000
Mean value:	3048.145348837
Standard deviation:	1464.836171693
Arithmetic sum:	1572843

Statistics Information

Database:	D:\Geosoft\sewageleachpond.gdb
Channel:	uRh
Line:	[All]
Fiducial range:	[All]
Number of items:	516
Number of dummies:	0
Minimum value:	15.072
Maximum value:	72
Mean value:	36.57774418605
Standard deviation:	17.57803406032
Arithmetic sum:	18874.116